

CLAIMS

What is claimed is:

1. A method for performing operations for programming one or more associative memories, the method comprising:
 - 5 identifying a specified policy map;
 - determining a set of entries based on the specified policy map; and
 - associating a force no-hit indication with one or more entries of the set of entries.
2. The method of claim 1, comprising programming one or more associative memories with the set of entries.
- 10 3. The method of claim 1, comprising programming a plurality of banks of an associative memory with the set of entries.
4. The method of claim 3, comprising associating a priority indication with each entry of the set of entries.
5. The method of claim 4, comprising:
 - 15 programming a plurality of banks of an associative memory with the set of entries;
 - and
 - associating a programmable priority level with each of the plurality of banks.
6. The method of claim 3, comprising associating a programmable priority level with each of the plurality of banks.
- 20 7. The method of claim 1, wherein at least one of said one or more entries corresponds to a deny operation.

8. An apparatus for programming one or more associative memories comprising:
means for identifying a specified policy map;
means for determining a set of entries based on the specified policy map; and
means for associating a force no-hit indication with one or more entries of the set
5 of entries.

9. The apparatus of claim 8, comprising means for programming one or more
associative memories with the set of entries.

10. The apparatus of claim 8, comprising means for programming a plurality of
banks of an associative memory with the set of entries.

10 11. The apparatus of claim 10, comprising means for associating a priority
indication with each entry of the set of entries.

12. The apparatus of claim 11, comprising:
means for programming a plurality of banks of an associative memory with the set
of entries; and
15 means for associating a programmable priority level with each of the plurality of
banks.

13. The apparatus of claim 10, comprising means for associating a programmable
priority level with each of the plurality of banks.

14. The apparatus of claim 9, wherein at least one of said one or more entries
20 corresponds to a deny operation.

15. An associative memory comprising:
a plurality of associative memory banks;
wherein each of said one or more associative memory banks includes a plurality
of entries; and

5 wherein each of the plurality of entries includes a force no-hit value field.

16. The associative memory of claim 15, wherein each of the plurality of entries
includes a priority indication field.

17. The associative memory of claim 16, comprising:
a plurality of mechanisms for identifying a block highest priority matching entry
10 for each of the plurality of associative memory banks; and
a priority mechanism for identifying a highest priority one of said associative
memory entries based on the block highest priority matching entry of each of the plurality
of associative memory banks and values of the priority indication fields associated with
the for the block highest priority matching entry of each of the plurality of associative
15 memory banks.

18. The associative memory of claim 16, comprising:
means for identifying a block highest priority matching entry for each of the
plurality of associative memory banks; and
means for identifying a highest priority one of said associative memory entries
20 based on the block highest priority matching entry of each of the plurality of associative
memory banks and values of the priority indication fields associated with the for the
block highest priority matching entry of each of the plurality of associative memory
banks.

19. A computer-readable medium containing computer-executable instructions for performing steps for performing operations for programming one or more associative memories, said steps comprising:

- identifying a specified policy map;
- 5 determining a set of entries based on the specified policy map; and
- associating a force no-hit indication with one or more entries of the set of entries.

20. The computer-readable medium of claim 19, wherein said steps comprise programming one or more associative memories with the set of entries.

21. The computer-readable medium of claim 19, wherein said steps comprise
10 programming a plurality of banks of an associative memory with the set of entries.

22. The computer-readable medium of claim 21, wherein said steps comprise associating a priority indication with each entry of the set of entries.

23. The computer-readable medium of claim 22, wherein said steps comprise:
programming a plurality of banks of an associative memory with the set of entries;
15 and
associating a programmable priority level with each of the plurality of banks.

24. The computer-readable medium of claim 21, wherein said steps comprise associating a programmable priority level with each of the plurality of banks.

25. The computer-readable medium of claim 19, wherein at least one of said one
20 or more entries corresponds to a deny operation.